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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/750,862   | 12/28/2000  | Yun Lung Chen        | 1916                | 2191             |
| 25859  | 7590        | 08/24/2005           | EXAMINER            |                  |
| WEI TE CHUNG<br>FOXCONN INTERNATIONAL, INC.<br>1650 MEMOREX DRIVE<br>SANTA CLARA, CA 95050 |             |                      | PATEL, NIHIL B      |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 3743                |                  |

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 09/750,862             | CHEN, YUN LUNG      |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Nihir Patel            | 3743                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on April 12<sup>th</sup>, 2005.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) \_\_\_\_\_ is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-9, 11, 13-18 and 20 is/are rejected.

7) Claim(s) 10, 12 and 19 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments filed on April 12<sup>th</sup>, 2005, with respect to claims 1 and 4 through 20 have been fully considered and are persuasive. The previous office action has been withdrawn.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Yu (US 5,959,837).

**Referring to claim 11**, Yu discloses a heat-radiating structure for cpu that comprises a fan (see figure 1); a heat pipe 22 (see figure 1) adapted to be attached to a heat-generating electronic device, the heat pipe comprising a free end; and a heat sink 2 (see figure 1) comprising a frame secured to the fan, a plurality of fins and a duct, the fins and the duct being accommodated in the frame, each of the fins defining a through hole for insertion of the duct therein, the frame defining a latching hole for interferentially engaging with an end of the duct interferentially receiving the free end of the heat pipe therein (see figure 1).

### *Claim Rejections - 35 USC § 103*

Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu (US 5,959,837) in view of Houdry (US 2,216,778).

**Referring to claims 1 and ,** Yu discloses the applicant's invention as claimed with the exception of providing fins that comprises a through hole that forms a connecting tab extending around a periphery of the through hole, a slot being defined in the connecting tab of each of the fins and receiving an end of the connecting tab of an adjacent one of the fins. Houdry discloses a heat exchanger member and method of making that does provide fins that comprises a through hole that forms a connecting tab extending around a periphery of the through hole, a slot being defined in the connecting tab of each of the fins and receiving an end of the connecting tab of an adjacent one of the fins (**see figures 1 through 3**). Therefore it would have been obvious to modify Yu's invention by providing fins that comprises a through hole that forms a connecting tab extending around a periphery of the through hole, a slot being defined in the connecting tab of each of the fins and receiving an end of the connecting tab of an adjacent one of the fins as taught by Houdry in order improve the heat transfer process.

**Referring to claims 4 and 13,** Yu discloses the applicant's invention as claimed with the exception of providing a pair of locating portions extending from each of the fins for forming intervals between the fins. Houdry discloses a heat exchanger member and method of making that does provide a pair of locating portions extending from each of the fins for forming intervals between the fins (**see figures 1 through 3**). Therefore it would have been obvious to modify Yu's invention by providing a pair of locating portions extending from each of the fins for forming intervals between the fins as taught by Houdry in order to improve the heat transfer process.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yu (US 5,959,837) in view of Houdry (US 2,216,778) as applied to claims 1 and 4 above, and further in view of Gebelius (US 3,780,797).

**Referring to claims 5 and 14,** Yu discloses the applicant's invention as claimed with the exception of providing a pair of abutting flanges respectively extending vertically towards each other from free ends of the locating portions of each of the fins, for abutting an adjacent one of the fins. Houdry discloses fins but fails to disclose a pair of abutting flanges that respectively extend vertically towards each other from free ends of the locating portions of each of the fins for abutting an adjacent one of the fins. Gebelius discloses convectors that does provide a pair of abutting flanges respectively extending vertically towards each other from free ends of the locating portions of each of the fins, for abutting an adjacent one of the fins (see figures 2 and 4). Therefore it would have been obvious to modify Yu's invention by providing a pair of abutting flanges respectively extending vertically towards each other from free ends of the locating portions of each of the fins, for abutting an adjacent one of the fins as taught by Gebelius in order to improve the heat transfer process.

Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu (5,959,837) in view of Buschow et al. (US 2,585,912).

**Referring to claims 6 and 15,** Yu discloses the applicant's invention as claimed with the exception of providing duct that is made of highly heat-conductive metal. Buschow discloses a regenerator for the recovery of the cold content of gases that does provide duct that is made of highly heat-conductive metal. Therefore it would have been obvious to modify Yu's invention by

providing duct that is made of highly heat-conductive metal as taught by Buschow in order to improve the heat transfer process.

**Claims 8, 9, 17 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu (US 5,959,837) in view of Lai (US 5,509,465).

**Referring to claims 8 and 17,** Yu discloses the applicant's invention as claimed with the exception of providing at least one of the casing that defines a pair of end tabs for abutting outmost fins. Lai discloses a heat-dissipating device for a central processing unit chip that does provide at least one of the casing that defines a pair of end tabs for abutting outmost fins (**see figure 3**). Therefore it would have been obvious to modify Yu's invention by providing at least one of the casing that defines a pair of end tabs for abutting outmost fins as taught by Lai in order to improve the heat transfer process.

**Referring to claim 9 and 18,** Yu discloses the applicant's invention as claimed with the exception of providing a latching hole that is defined in each of the casings for interferentially engaging with the duct. Lai discloses a heat-dissipating device for a central processing unit chip that does provide a latching hole that is defined in each of the casings for interferentially engaging with the duct (**see figure 3**). Therefore it would have been obvious to modify Yu's invention by providing a latching hole that is defined in each of the casings for interferentially engaging with the duct as taught by Lai in order to improve the heat transfer process.

**Referring to claims 7 and 16,** Yu discloses applicant's invention as claimed with the exception that Yu doesn't provide an L- shaped casing to hold the duct and fins together but rather provides a different shape of frame. You can have an L-shaped frame or an O shaped

frame it is a matter of design choice, and it will not solve any stated problem or produce any new and/or unexpected results.

**Referring to claim 20,** the applicant claims that each of the fin is made of a single metal plate. It has been held "that the use of a one piece construction instead of the structure disclosed in [Yu US 5,959,837; Houdry US 2,216,778] would be merely a matter of obvious engineering choice." In re Larson, 340 F.2d 965, 144 USPQ 347, 349 (CCPA 1965).

***Allowable Subject Matter***

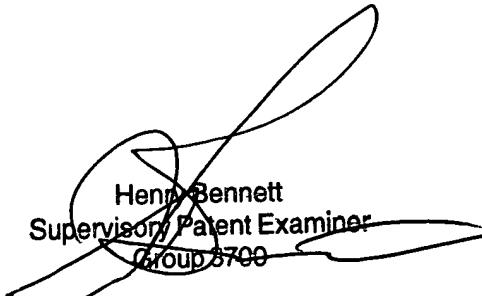
Claims 10, 12 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Nihir Patel whose telephone number is (571) 272-4803. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful the examiner supervisor Henry Bennett can be reached at (571) 272 4791.

NP  
August 10<sup>th</sup>, 2005

  
Henry Bennett  
Supervisory Patent Examiner  
Group 3700